

City of Cambridge Stormwater Management Program

Phase II NPDES
Stormwater Management Program
Public Meeting
March 24, 2010

Brief Overview



- **National Pollutant Discharge Elimination System (NPDES) permit program authorized by the Clean Water Act (CWA)**
- **1999: Phase II NPDES Stormwater Management Program**
 - Regulates stormwater discharges from small Municipal Separate Storm Sewer Systems (MS4)
 - Initial Notice of Intent submitted July 2003
 - Currently Completing Year 7
 - Awaiting release of new 5-year permit

Stormwater Management Program

- Address 6 Minimum Control Measures
 1. Public education/outreach
 2. Public involvement/participation
 3. Illicit discharge detection/elimination
 4. Post-construction stormwater management
 5. Construction Site stormwater runoff control
 6. Pollution prevention/good housekeeping for municipal operations
- Develop and implement Best Management Practices to address each program area

Program Objective

Reduce discharges of pollutants from a regulated stormwater system (MS4) to the *maximum extent practicable*, to protect water quality.



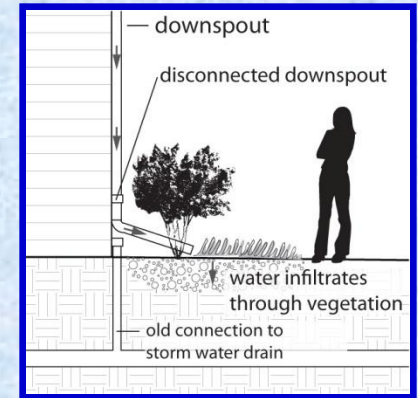
Runoff Discharges
to Nearby Waters



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#1. Public Education & Outreach

- Web Site redesign and updates
 - New Stormwater webpage under development
 - Sampling data
 - CSO information
- City View
 - LID/downspout disconnection
 - City Smart – alternative transportation
- Rain Barrel Promotion
 - Displays around City
 - Container Gardening Workshop
 - Fresh Pond Day
- Curb Marker installation
- Science Festival
- Floodplain changes
- EnviroScape demonstrations
 - DPW Road Show
 - Breakthrough Cambridge
 - Team Green Sense
- Public Planting Com – Rain Garden



EnviroScape

#2. Public Participation & Involvement

- FAR Summer Ecology Camp – tree maintenance
- Household Hazardous Waste Collection
- Tri Community Meetings
- Fresh Pond Day
- GoGreen Awards
 - Old Cambridge Baptist Church – Rainwater harvesting system
 - Forest City – green roof
- Environmental MA
 - Press event – Clean Water Act
- Annual Meeting



#3. Illicit Discharge Detection & Elimination



Prohibit, identify and remove illicit connections and discharges

- Water quality sampling
 - Charles - 33 Dry, 2 wet, 1 Oil & Grease
 - Alewife - 24 Dry, 2 wet, 1 Oil & Grease
- Removal of Illicit Connections – 9
- Common Manhole Separation – 30 (CMH 4, Remedial, various)
- Sparks St & Lechmere Canal IDDE protocol investigations
- Restaurant meetings – 248 owners



#4. Construction Site Runoff Control



Reduce pollutants from construction sites that disturb ≥ 1 acre and significant projects

- Stormwater Control Permits – Erosion Control Plan - 3
- Weekly meetings with large contractors during March – Nov
- Hired a compliance officer – Yilkal Bekele – June 11, 2009
- Active construction sites inspected - 16
- Erosion & sediment control inspections - 39



#5. Post Construction Stormwater Management



Address runoff from significant new and redevelopment projects through the use of BMPs

- Stormwater Control Permit's reviewed - 3
- Hired a compliance officer – Yilkal Bekele – June 11, 2009
- Post Construction BMP Inspections - 10
- Database development for private BMP facilities





#6. Pollution Prevention & Good Housekeeping for Municipal Operations

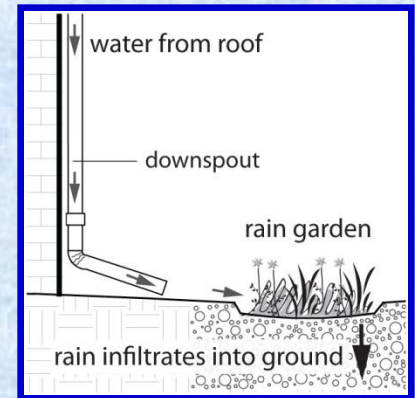
- Street Sweeping— mechanical and vacuum

- 1,808 tons of street sweeping debris
- 958 catch basins cleaned (682 tons)



- Demonstration Projects

- ✓ Rain Garden - DPW
- ✓ Filterra – Brookline Street
- ✓ Flexipave – Little Fresh Pond
- ✓ Porous Asphalt – King Open School



- Municipal Facility Inspections

- ✓ 155 total facilities
- ✓ 50 +/- in separated areas
- ✓ 35 inspected Year 7 (to date)

- Dumpster Ordinance

- Trees Planted – 466



#6 Pollution Prevention cont.

- Staff Training
 - ✓ UNH
 - ✓ Erosion & Sediment Control
 - ✓ Municipal Good Housekeeping
- Capital Improvement Projects
 - ✓ Common Manhole Removal - 30
 - ✓ Remedial – CMH, illicit connections, cracked pipes, etc.
 - ✓ Broadway Tank
 - ✓ CAM400 floatables control and sewer separation
 - ✓ Frost Street Sewer Separation



Highlights for next permit year

- BMP Vacuum Sweeper Efficiency Test – USGS
 - Commercial land use (3 streets)
 - Multi family land use (3 streets)
- CAM 400 Sewer Separation and floatables control – construction (\$4.85M)
- CambridgePark Drive Area Drainage Project – bid & construction start
- Contract 8A Sewer Separation (54 acres) design
- Common Manholes – contract 7 (\$3.3M)
- Remedial (\$.7M)

What we anticipate for the New NPDES Permit

- Draft issued – available for comment until 3/31
- Final – Summer 2010 ??
- Phosphorous Control Plan (TMDL)
- Wet weather sampling
- More focus on LID, reduction of impervious areas

Comments/Questions